



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,351	12/01/2004	Eiko Shimizu	018793-274	9534

21839 7590 08/11/2006

BUCHANAN, INGERSOLL & ROONEY PC  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER
----------

LIU, JONATHAN

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/516,351

Applicant(s)

SHIMIZU ET AL.

Examiner

Jonathan J. Liu

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-8 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/1/2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see pages 7-10 of the remarks, filed 5/23/2006, with respect to the rejection(s) of claim(s) 1-14 under U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a different interpretation of previously applied references

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Shang (US 6,132,455). Kitagawa discloses a mat comprising multiple chambers (2) which are in parallel and adjacent to each other, wherein the multiple filling chambers are formed of flexible sheets, a gel-like heat medium is charged into the multiple filling chambers by inserting closely a bag (4) having the heat medium charged therein into each of the multiple filling chambers and sealing the multiple filling chambers. However, Kitagawa does not disclose embosses. Shang shows a mat comprising embosses (105; see also col. 4, lines 46-47). Kitagawa and Shang are analogous because they are from the same field

Art Unit: 3673

of endeavor, i.e. mats. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the mat of Kitagawa with the embosses of Shang. The motivation would have been to provide a more secure and safe seal of the filling chambers. Therefore, it would have been obvious to modify the invention to Kitagawa as specified in claim 1.

With regards to the limitation wherein each emboss being formed by bonding together predetermined regions of wall surfaces that form one of the multiple filling chambers, it is noted that this is a product-by-process limitation and granted no patentable weight. Additionally, as whether a product is patentable depends on whether it is known in the art or it is obvious, and is not governed by whether the process by which it is made is patentable In re Klug, 333 F.2d 905, 142 U.S.P.Q. 161 (CCPA 1964).

Regarding claim 3, see above explanation of product-by-process.

In regards to claims 5 and 11, Kitagawa shows flexible fins which are extended outwardly from at least a part of the margins (see figure 1 of Kitagawa).

2. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Shang (US 6,132,455) as applied to claim 1, in further view of Balaton (US 5,044,030). Kitagawa as modified, discloses the mat of claim 1. However, Kitagawa as modified, fails to disclose wherein the multiple filling chambers are a pair of opposite thermoplastic resin sheets. Balaton discloses a mat comprising multiple chambers made of thermoplastic sheets (col. 3, lines 45-46).

Kitagawa and Balaton are analogous because they are from the same field of endeavor, i.e. mats. It would have been obvious to one having ordinary skill in the art at the time

Art Unit: 3673

the invention was made to modify the mat of Kitagawa with the thermoplastic resin sheets of Balaton. The motivation would have been to provide a material which is impervious to liquids in order to retain the mat in acceptable shape. Therefore, it would have been obvious to modify the invention of Kitagawa as specified in claims 4 and 10.

3. Claims 6-7 and 12 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Shang (US 6,132,455) as applied to claim 1, in further view of Navarro (US 6226820). Kitagawa as modified, discloses the mat of claim 1. However, Kitagawa as modified, fails to disclose wherein the heat medium is a cooling and heating material. Navarro discloses a gel pad wherein the gel can retain heat (thereby making it a warming material) or cold (thereby making it a cooling material) depending on the temperature to which the gel has been subjected (col. 5, lines 45-48). Kitagawa and Navarro are analogous because they are from the same field of endeavor, i.e. mats. It would have been obvious to one having ordinary skill in the art at the time the invention was made to alter the cushion taught by Kitagawa, with the gel as either a warming or cooling material as taught by Navarro, in order to make the user of the mat comfortable. Therefore, it would have been obvious to modify the mat of Kitagawa as specified in claims 6-7 and 12-13.

4. Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (JP 10-304950) in view of Shang (US 6,132,455) as applied to claim 1, in further view of Carson (US 6375674). Kitagawa as modified, discloses the mat of claim 1. However, Kitagawa as modified, fails to disclose wherein the heat medium is a hydrogel. Carson discloses a cooling/heating pad comprising a hydrogel to achieve a

Art Unit: 3673

relatively high thermal conductivity (col. 9, lines 12-17). Kitagawa and Carson are analogous because they are from the same field of endeavor, i.e. mats. It would have been obvious to one having ordinary skill in the art at the time the invention was made to alter the cushion taught by Kitagawa, with the hydrogel as taught by Carson in order to improve the thermal conductivity of the cushion. Therefore, it would have been obvious to modify the invention to Kitagawa as specified in claims 8 and 14.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan J. Liu whose telephone number is (571) 272-8227. The examiner can normally be reached on Monday through Friday, 8 am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

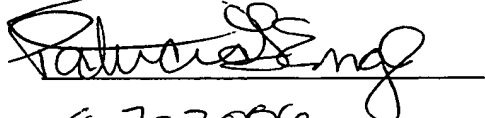
Art Unit: 3673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jonathan J Liu  
Examiner  
Art Unit 3673

*g*

Patricia Engle  
Supervisory Primary Examiner  
Art Unit 3673

  
8-7-2006